MEASURING PRICE ACTIVITY IN THE ART INVESTMENT MARKET

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Abstract

An attempt is made here to construct an art price index that is both reliable and a useable tool for people with no expertise in the market. Those who would be interested in using it might be investors, collectors, sellers, and economists. The above mentioned criteria are the traditional measures of index construction, Irving Fisher, in his important treatise on index numbers, ranks index formulas according to accuracy, speed, and simplicity, or, as he describes it, "Inteligibility to the uninitiated," (1922, p. 365).

Statement of the Problem

Presently there is no reliable and easy way to measure price activity in the art market. Observers must rely on information provided by insiders such as art dealers. This information often takes the form of opinions rather than formal analysis.

The upper end of the art market, however, is an attractive investment alternative. Prices of high-quality oil paintings have risen steadily during the 1960s, '70s, and into the '80s. With rising prices, an organized market structure, and tangible goods, it is easy to see why this market is being increasingly viewed as an investment opportunity.

Without a way to measure general price activity, however, the investor assumes a lot of risk in this market. He/she cannot be sure if prices are going up or down or how a particular group of prices is changing. Furthermore, the potential investor does not know the longterm monetary appreciation of oil paintings. Other investment alternatives however, have price indicators which describe price changes. For example, there is the Dow Jones stock market index, and price indicators are readily available for bonds, diamonds, gold, coins, and real estate. Since the primary interest of an investor is to maximize the difference between paid price and price sold, price information is of paramount concern to potential investors. For these reasons, an attempt is made here to construct an art price index.

Difficulties in Measuring Art Price Activity

There is one important obstacle to construction of an art price index: art is not an homogeneous commodity. The principles of index construction require that all other factors be held constant while one measures price changes only (Jedamus et al 1976). Specifically, the indexor selects a "market-basket" of goods which can be characterized and is sold during each time period of the index. The Consumer Price Index functions like this.

Finding a Market-basket of Art

There is no market-basket of art, unfortunately, which is sold every month or every year. Some works of art are off the market for 50-75 years, held in family estates and passed on from year to year. Some Impressionist paintings appear on the market today which have been in the family of the original purchaser for a hundred years. Very expensive works are held for a minimum of twenty years in order to accrue appreciation and to prevent suspicion regarding authenticity. High priced works which appear on the market too frequently lead people to suspect the owners have discovered its questionable authenticity and want to unload it before anyone finds out. Even works in the price range $50,000-$500,000 are held for 10-20 years for price appreciation (Bates 1979). Consequently, one could not reasonably expect to identify a particular set of paintings which is sold regularly every five or ten years.

It might be possible to identify a set of paintings turned over at least once during a 25 year period. The index then would present an average price for 1900-1925, one price for 1925-1950, and one for 1950-1975. Unfortunately, within each time period there is a wide range of economic health, hence a wide range of investment prices. In the time period 1925-1950, one would see art prices during the boom years of the 1920s, the Depression years, and the post WWII boom. Hence, art prices during this period reduced to one number has little meaning.

Styles have Individual Price Histories

Determined indexers might continue to struggle to find a consistent art market-basket. Giving up on the idea of finding particular paintings which are resold each time period, they might suggest a different approach. Perhaps one could identify 20 or so paintings and follow their price activity over from, say, 1900 to 1980. Then one could look at whatever prices are available during each 5 year period. If one started with a set of comparably priced, comparable quality paintings, then by definition, the characteristics of the art market-basket would be consistent each 5 year period. Only the quantity of the paintings sold each period would vary, but that is not an unsurmountable obstacle.

This second approach however, has a build-in flaw. While 20 paintings may be comparable priced in 1900, they may not be comparably priced in 1920, 1940, and so on. English portraiture, for example, reaches a price peak during the 1920s. Several Reynolds paintings sold for £50,000 and one for £73,000 around 1920. Then interest disappeared for this style and prices plunged. Of the prices available, one does not see his paintings sell for more than £10,000 until 1963, with high sales in that decade of £22,000 and £25,000 (Reitlinger 1963). Prices of an Impressionist, Pissarro, increased tenfold during this same stretch of time. Hence, the fluctuation in prices may not represent overall art prices, but only individual styles.

One might think that this problem could be eliminated by careful sample construction: select only those generally accepted, enduring styles. While the Old Masters is such a style, an index based on
the Old Masters reflects only a small part of the market and does not take into account faster growing styles which are actually a larger part of the market.

Study of the market, then, leads one to conclude that finding a consistent art market-basket is not feasible. One is still left with the difficulty of constructing an index to measure price changes.

Tried and True(?) Attempts

In 1963, Reitlinger published a monumental art price study. He presented no index, but listed for us 1400 pages of art prices from 1760-1963. His prices are organized by artist so that one can see at a glance the price level fluctuation over the last 200 years.

Rush

About the same time, Rush published the first organized descriptive account of the buying and selling of oil paintings. He also constructed an index, although he does not explain his methodology, one can assume it is a weighted average. He grouped paintings according to style and assigned a weight to each group according to popularity in the marketplace. His index numbers are presented below (1961, p. 376):

<table>
<thead>
<tr>
<th>Year</th>
<th>Index Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1925</td>
<td>100%</td>
</tr>
<tr>
<td>1930</td>
<td>139%</td>
</tr>
<tr>
<td>1935</td>
<td>121%</td>
</tr>
<tr>
<td>1940</td>
<td>170%</td>
</tr>
</tbody>
</table>

Since readers do not know how the index was constructed we cannot evaluate it, but it does reflect what we would expect to see in art prices from 1925 to 1960.

Keen

In 1967, Keen began work on an art price index (1971). After three years, working full-time with art specialists, she produced one. It is a weighted aggregate of the Paasche variety. The amount of labor involved and the use of specialized knowledge was so great that the index was discontinued within a few years of its creation.

The advantage of Keen's index is that the problem of a consistent market-basket is addressed and dealt with effectively. Keen worked with employees of the world's largest art auction house, Sotheby's, and relied on their recommendations to select a comparable market-basket of art each time period. Thus, comparability was established through the expert, albeit subjective, judgment of the art specialist. In this way, one could safely assume that index fluctuations which occur represent price fluctuations.

Although statisticians like to limit subjectivity in their work, they would most likely find Keen's work acceptable, given the heterogeneity of the product. While her approach is reliable it is not easily updated. Construction of a new year's index requires that Keen meet with the specialists, rifle through hundreds of sale records, and ponder the characteristics of many paintings in order to select a group which is comparable to the previous year's group. This is an expensive, time-consuming process dependent on highly trained art historians. The search for a reliable, easily understood index continued.

Stein

In 1977, Stein published an art price index developed in his dissertation. He took the opposite approach as Keen, and produced opposite results. That is, his index may not be reliable, but it is easily updated.

He calculated the geometric mean of art prices as the formula for his index. He included all prices from auction sales for each year from 1947-68, except those from living artists. This means that the underlying population of paintings remains the same over the years. He addressed the issue of quality by assuming that the sample of auction prices was drawn from the same fixed stock or population of paintings each year. Random samples from the same population, then, should have the same characteristics. Hence, he introduces a simple way of creating a consistent quality art market-basket.

While the rationale for consistent quality is palatable, as well as his choice of index formula, his sampling procedure is questionable. His approach, including all art auction prices, is like constructing a one-number, global, automobile index. An index containing $5,000 Chevettes and $125,000 Lamborghini Countaches is not meaningful and neither is an art index covering $1,000 and $1,000,000 works.

Since neither index was both reliable and easily constructed, they were short-lived. The decade 1973-83 saw scattered attempts at art index construction among art dealers.

Sotheby's Tries Again—with Eckstein

In 1981, Sotheby's introduced a new index, constructed by Eckstein (Mahon 1981). This statistician was hired by Sotheby's and worked for a year and a half to produce his weighted aggregate index. He developed 12 indices, one each for 12 categories of art. Each category includes about 30 pieces of art which are specific, individual works. A recent market price is obtained for each work, thus providing an actual base price. Since each work is not resold each year, art specialists select a similar piece which is sold and look at its sale price. They then apply this actual sale price of the similar object, to the base object, thus revaluing the prices of the base sample. Using their best judgment, then, the specialists select a comparable group of objects each time period and use those prices. While this index seems as reliable as Sotheby's previous effort, it still requires subjective judgment of many art experts to update. Surely an art price index can be developed which is reliable but easily updated.

Bates Tries Another Approach

Bates' attempt builds on the work of previous researchers, combining some of their more useful features, such as Stein's approach to achieving consistent quality, Keen's interest in relevant art data, and Stein's interest in an easily updated